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10/723,693

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Trinh T. Phung

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09/06/2006

KENYON & KENYON LLP
333 W. SAN CARLOS STREET
SUITE 600
SAN JOSE, CA 95110-2731

EXAMINER

NGUYEN, TANH Q

ART UNIT PAPER NUMBER

2182

DATE MAILED: 09/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

| | | |
|--------------------------------------|-------------------------------------|--|
| Application No. 10/723,693 | Applicant(s) PHUNG ET AL. | |
| Examiner Tanh Q. Nguyen | Art Unit 2182 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 21 July 2006.
- 2a) This action is FINAL.
- 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-110 is/are pending in the application.
4a) Of the above claim(s) 8-12, 15, 23-27, 30, 34-40, 48-52, 55, 63-67 and 70-110 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-7, 13, 14, 16-22, 28, 29, 31-33, 41-47, 53, 54, 56-62, 68, 69 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 25 November 2003 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 11/25/03, 05/09/05.
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application
- 6) Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election of Species I in the reply filed on July 21, 2006 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).
2. Claims 8-12, 15,23-27,30,34-40,48-52,55,63-67,70-110 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim.

Drawings

3. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

4. Claims 13, 28 are objected to because of the following informalities:

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“MDC/MDIO” should be replaced with “Management Data Clock/Management Data I/O (MDC/MDIO)”.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

6. Claims 7, 22, 47, 62 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Each of claims 7 and 22 recites a second bridge without reciting a first bridge. Since claims 47, 62 depend on claims 7, 22 respectively, they are also rejected.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-2, 4-6, 13, 14, 16-17, 19-21, 28-29, 31, 32, 41-42, 44-46, 53-54, 56-57, 59-61, 68-69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huang et al. (US 2004/0225875 A1).

10. As per claim 1, Huang teaches a physical layer device [LAN chip 100, FIG. 1; LAN chip 510, FIG. 5], comprising:

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a volatile memory [511, FIG. 5] for storing configuration information for the physical layer device [[0006], lines 6-8; [0029], lines 5-9];

a first signal path between the volatile memory and a system controller [signal path between an inherent controller on the LAN chip and the volatile memory on the LAN chip], communicating the configuration information for the physical layer device to the volatile memory [[0006], lines 6-8].

Huang does not specifically teach the physical layer device being IEEE 802.3 compliant. Since it was known in the art at the time the invention was made for a LAN to be in compliance with IEEE 802.3 standard to execute communication control in compliance with such standard, it would have been obvious to one of ordinary skill in the art at the time the invention was made for the physical layer device to be compliant with the IEEE 802.3 standard in order to execute communication control that is in compliance with such standard.

11. As per claims 2, 4-6, 13-14, Huang teaches a second signal path [101-100, FIG. 1] for communicating the configuration information between the volatile memory and at least one non-volatile memory [101, FIG. 1];

the volatile memory comprising a shadow RAM [[0020], lines 4-6];

the at least one non-volatile memory comprising an EEPROM [101, FIG. 1];

the first signal path comprising an inherent controller, hence a first bridge;

since it was known in the art for an 802.3 compliant LAN chip to communicate with the MAC layer with MDC/MDIO, it would have been obvious to one of ordinary skill in the art at the time the invention was made for the system controller to be a

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MDC/MDIO system controller in order to interface with the MAC;

since it was known in the art for an EEPROM to communicate with the LAN chip using a two-wire serial interface, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a two-wire serial interface to allow the EEPROM to communicate with the LAN chip.

12. As per claims 16-17, 19-21, 28-29, the claims generally correspond to claims 1-2, 4-6, 13, 14 and are rejected on the same bases.

13. As per claims 31, 32, the claims generally correspond to claims 1-2, and are rejected on the same bases.

14. As per claims 41-42, 44-46, 53-54, the claims generally correspond to claims 1-2, 4-6, 13, 14 and are rejected on the same basis - with the data transfer system being the data transfer system of FIG. 1.

15. As per claims 56-57, 59-61, 68-69, the claims generally correspond to claims 41-42, 44-46, 53-54 and are rejected on the same basis.

16. Claim 1-7, 13, 14, 16-22, 28, 29, 31-33, 41-47, 53, 54, 56-62, 68, 69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sefidvash (US 6,906,426), and alternatively over Sefidvash in view of Fujimori et al. (US 2004/0030805 A1).

17. As per claim 1, Sefidvash teaches a physical layer device [10, FIG. 4], comprising:

a volatile memory [160, FIG. 4] for storing configuration information for the physical layer device [col. 5, lines 26-34; col. 6, lines 39-41];

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a first signal path [12-160, FIG. 4] between the volatile memory and a system controller [12, FIG. 4], communicating the configuration information for the physical layer device to the volatile memory [col. 7, lines 61-65].

Sefidvash does not specifically teach the physical layer device being IEEE 802.3 compliant. Since it was known in the art at the time the invention was made for a physical layer device to be in compliance with IEEE 802.3 standard to execute communication control in compliance with such standard, it would have been obvious to one of ordinary skill in the art at the time the invention was made for the physical layer device to be compliant with the IEEE 802.3 standard in order to execute communication control that is in compliance with such standard.

Fujimori teaches a physical layer device [10, FIG. 4] that is similar to the physical layer device of Sefidvash, and further teaches the physical device being 802.3 compliant [[0082], lines 1-2]. Since Fujimori and Sefidvash have the same assignee, it would have been obvious to one of ordinary skill in the art at the time the invention was made for the physical layer device to be compliant with the IEEE 802.3 standard in order to execute communication control that is in compliance with such standard.

18. As per claims 2-7, 13-14, Sefidvash teaches a second signal path [11-160, FIG. 4] for communicating the configuration information between the volatile memory and at least one non-volatile memory [40, 170, FIG. 4; col. 5, lines 26-34; col. 6, lines 39-41];

an arbiter [14, FIG. 4] for receiving requests to access the volatile memory from the first signal path and the second signal path. Sefidvash does not teach giving priority to the first signal path. Since applicant did not provide any reason for giving priority to

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the first signal path, and it appears that priority can be given to either one of the signal paths, it would have been obvious to one of ordinary skill in the art at the time the invention was made to give priority to the first signal path in order to allow the first signal path to access the volatile memory before the second signal path. Furthermore, since it was known in the art at the time the invention was made to give higher priority to data transfer coming from a remote location over a network or from an upper level system, it would have been obvious to one of ordinary skill in the art at the time the invention was made to give priority to the first signal path because the first signal path is used for data transfer with a remote location over a network or with an upper level system;

the volatile memory comprising shadow registers [160, FIG. 3] - since it was known in the art for registers to be provided in RAM to store data, it would have been obvious to one of ordinary skill in the art at the time the invention was made for the shadow registers to be provided in RAM in order to store data - hence the volatile memory comprising a shadow RAM;

the at least one non-volatile memory comprising an EEPROM [40, 170, FIG. 4];

the first signal path comprising a first bridge [12, FIG. 4];

the second signal path comprising a second bridge [11, FIG. 4];

the system controller being a MDC/MDIO system controller [12, FIG. 4];

a two-wire serial interface [col. 4, lines 40-42].

19. As per claims 16-22, 28, 29, 31-33, 41-47, 53, 54, 56-62, 68, 69, the claims generally correspond to one or more of claims 1-7, 13, 14, and are rejected on the same bases - with the data transfer system being the data transfer system of FIG. 1.

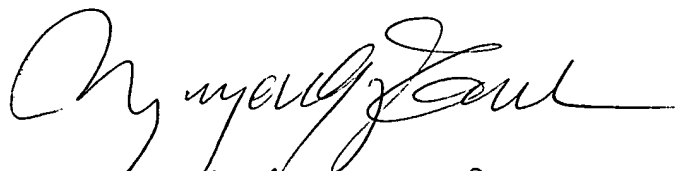
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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tanh Q. Nguyen whose telephone number is 571-272-4154. The examiner can normally be reached on M-F 9:30AM-7:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Huynh can be reached on 571-272-4147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


September 4, 2006

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September 4, 2006